

AMENDMENTS TO THE CLAIMS

1-43. (Cancelled)

44. (Currently amended) A method for detection of a pathogen by detecting a plurality of analytes in a sample, wherein the plurality of analytes is at least two analytes selected from the group consisting of proteins of the pathogen and antibodies specific for the proteins derived from infection by the pathogen, and the method comprising the steps of:

- (a) providing a solid phase comprising a non-porous support, the non-porous support comprising at least two spatially separate test areas ~~and an inert solid phase~~, wherein a first test area has a first analyte-specific receptor bound thereto, and a second test area has a second analyte-specific receptor bound thereto, each spatially separate test area having no more than one type of analyte-specific receptor bound thereto, and each analyte-specific receptor is specific to an analyte of the plurality of analytes in the sample, and wherein the first receptor and the second receptor bind to different analytes of the plurality of analytes in the sample;
- (b) contacting the sample with the solid phase and with a detection reagent comprising one or more third receptors to allow binding of the plurality of analytes to the first and second test areas and allow binding of the one or more third receptors to the plurality of analytes bound to the first and second test areas, wherein each third receptor is specific for one or more analytes of the plurality of analytes bound to the first and second test areas, and wherein each third receptor is directly or indirectly labeled with a signal generating group;
- (c) detecting and separately measuring presence or amount of a signal generated by the signal generating group bound to the first and second test areas; and
- (d) calculating a test area-specific cut-off ~~index (COI)~~ on each test area based on a test area-specific background measured in the absence of the plurality of analytes~~detected from a signal generated by any signal generating group non-specifically bound to the inert solid phase, wherein the test area-specific background is detected from a signal generated by any signal-generating group non-specifically bound to the~~ at least first or second test area in the absence of any analyte of the plurality of analytes.

wherein the signal generated in the presence of the plurality of analytes by the signal generating group bound to the first or second test area above the test area-specific cut-off is classified as a positive result, and wherein a positive result obtained from at least one of the first and second test areas a COI larger than 1 for either one of the first and second test areas is indicative of presence of an analyte of the plurality of analytes that binds to the first or second test area, which is indicative of the presence of the pathogen in the sample.

45. (Previously presented) The method of claim 44 wherein the plurality of analytes is selected from the group consisting of human immunodeficiency virus I (HIV I)-antibodies, human immunodeficiency virus II (HIV II) -antibodies, and HIV antigens.
46. (Previously presented) The method of claim 44 wherein each test area has a diameter of 0.01 to 1 mm.
47. (Currently amended) The method of claim 44 wherein the solid phase further comprises a control area for detecting false results caused by interferences.
48. (Previously presented) The method of claim 44 wherein the signal generating group is either directly bound to the third receptor or is a universal detection reagent comprising labelled latex particles which binds to the third receptor.
- 49-72. (Canceled)
73. (Previously presented) The method of claim 44, wherein the plurality of analytes comprises at least two different antigens or at least two different antibodies or at least one antigen and one antibody.
74. (Canceled)

75. (Previously presented) The method of claim 73, wherein the plurality of analytes comprises HIV p24 antigen, antibodies to HIV gp41 polypeptide, or antibodies to HIV reverse transcriptase (RT).
76. (Previously presented) The method of claim 44, wherein the signal generating group comprises a fluorescent group, a chemiluminescent group, an enzyme, a radioactive group or a sol particle group.
77. (Previously presented) The method of claim 44, wherein the pathogen is selected from the group consisting of HIV I, HIV II, HBV, and HCV.
- 78-80. (Canceled)
81. (Previously presented) The method of claim 44 wherein the plurality of analytes is human hepatitis B virus (HBV) antibodies or antigens.
82. (Previously presented) The method of claim 44 wherein the plurality of analytes is human hepatitis C virus (HCV) antibodies or antigens.